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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,129	05/29/2001	Akiyuki Yoshisato	9281-4101	6504

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EXAMINER

GRAYBILL, DAVID E

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,129

Applicant(s)

YOSHISATO ET AL.

Examiner

David E Graybill

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claim 1 limitation, "whose perimeter has a non-rectangular shape" must be shown or the features canceled from the claim.

To further clarify, the capacitors illustrated in Figure 2, have edges, surfaces, and faces that meet at right angles; therefore, Figure 2 does not show at least one of the capacitors whose perimeter has a non-rectangular shape.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The undescribed subject matter of the claimed invention is the limitation, "whose perimeter has a non-rectangular shape."

To determine adequacy of written description for original claims MPEP

2163IIA2(a) (redacted) instructs:

(i) For Each Claim Drawn to a Single Embodiment Or Species:

(A) Determine whether the application describes an actual reduction to practice of the claimed invention.

(B) If the application does not describe an actual reduction to practice, determine whether the invention is complete as evidenced by a reduction to drawings or structural chemical formulas that are sufficiently detailed to show that applicant was in possession of the claimed invention as a whole.

(C) If the application does not describe an actual reduction to practice or reduction to drawings or structural chemical formula as discussed above, determine whether the invention has been set forth in terms of distinguishing identifying characteristics as evidenced by other descriptions of the invention that are sufficiently detailed to show that applicant was in possession of the claimed invention.

(1) Determine whether the application as filed describes the complete structure (or acts of a process) of the claimed invention as a whole.

(2) If the application as filed does not disclose the complete structure (or acts of a process) of the claimed invention as a whole, determine whether the specification discloses other relevant identifying characteristics sufficient to describe the claimed invention in such full, clear, concise, and exact terms that a skilled artisan would recognize applicant was in possession of the claimed invention. Any claim to a species that does not meet the test described under at least one of (a), (b), or (c) must be rejected as lacking adequate written description under 35 U.S.C. 112, para. 1.

ii) For each claim drawn to a genus:

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice (see i)(A), above), reduction to drawings (see i)(B), above), or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus (see i)(C), above).

Regarding the generic limitation "whose perimeter has a non-rectangular shape," there is insufficient original description of a representative number of species by actual reduction to practice, reduction to drawings, or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying

characteristics, sufficient to show the applicant was in possession of the claimed genus.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The non-described subject matter is the claim 1 limitation, "whose perimeter has a non-rectangular shape."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there is insufficient antecedent basis for the language, "either side."

In the rejections infra, generally, reference labels are recited only for the first recitation of identical claim elements.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Haq (6146743), Arai (6410960) and Shahani (6028990).

At column 9, lines 45-51 and 56-63, column 21, lines 1-21, and column 22, lines 32-28 and 41-45, Haq discloses the following an electronic

circuit unit comprising: an alumina substrate 50; thin film circuit elements including capacitors, resistors, and inductance elements (not labeled) formed on the alumina substrate; thin film conducting patterns "conductors," and 70, 72 connected to the circuit elements formed on the alumina substrate; a semiconductor chip mounted on the alumina substrate and wire bonded to the conducting pattern "wire bonding of surface mount components."

However, Haq does not appear to explicitly disclose a bare chip.

Nonetheless, at column 1, lines 61-67, Arai discloses a bare chip 204. In addition, it would have been obvious to combine the product of Arai with the product of Haq because it would provide a chip.

Also, Haq does not appear to explicitly teach the particular claimed capacitor shape. Notwithstanding, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization to choose this particular shape because applicant has not disclosed that the shape is for a particular unobvious purpose, produces an unexpected result, or is otherwise critical, and it appears prima facie that the process would possess utility using another shape. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ

237 (CCPA 1955); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Haq also does not appear to explicitly disclose wherein at least one of the capacitors is comprised of two parallel plates disposed on either side of a dielectric material and whose perimeter has a non-rectangular shape, wherein each parallel plate of the non-rectangular capacitor is comprised of a plurality of contiguous rectangular areas, at least one of which has different linear dimensions or orientation.

Nonetheless, at column 3, line 53 to column 4, line 57; column 7, lines 23-32, and 56-58; column 9, lines 17-26; and column 10, lines 10-23, Shahani discloses wherein at least one of the capacitors is comprised of two parallel plates disposed on either side of a dielectric material and whose perimeter has a non-rectangular shape, wherein each parallel plate of the non-rectangular capacitor is comprised of a plurality of contiguous rectangular areas, at least one of which has different linear dimensions or orientation "L' shaped." Furthermore, it would have been obvious to combine the product of Shahani with the product of the applied prior art because, as disclosed by Shahani, it would match spaces left open by other sections of the circuit and efficiently use the area of the chip.

Claims 3, 4, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Haq, Arai and Shahani as applied to claims 1, 2 and 10, and further in combination with applicant's admitted prior art.

The combination of Haq, Arai and Shahani does not appear to explicitly disclose wherein a portion of the thin film conducting pattern formed on the substrate and disposed on one side of the dielectric material serves as the one electrode of a ground capacitor; wherein the non-rectangular capacitor is a ground capacitor.

Regardless, in the "Description of the Related Art" applicant admits as prior art wherein a portion of the thin film conducting pattern formed on the substrate and disposed on one side of the dielectric material serves as the one electrode of a ground capacitor; wherein the capacitor is a ground capacitor. Furthermore, it would have been obvious to combine the conventional ground capacitor with the applied prior art because it would provide ground capacitance.

Claims 5-8 are allowed.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Applicant's amendment and remarks filed on 12-22-3 have been fully considered, are addressed by the rejections supra, and are further addressed infra.

Applicant states, "earth capacitor", which the Examiner contends is not otherwise found in the disclosure."

This statement is respectfully deemed to be incorrect because there is no contention that the term earth capacitor is not otherwise found in the disclosure.

Also, applicant argues, "there is nothing [in Haq] to suggest the use of the non-rectangular capacitor shape to achieve an object of the Applicants' invention."

Regardless, it is respectfully submitted that reasons for, or advantages resulting from, doing what the applied prior art has suggested, in this case as an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization, is not demonstrative of nonobviousness. In re Kronig 190 USPQ 425, 428 (CCPA 1976); In re Lintner 173 USPQ 560 (CCPA 1972). Indeed, the prior art teaches the claimed invention; therefore, the alleged reason or advantage is an inherent result of the prior art process. Furthermore, the prior art motivation or advantage may be different than that of applicant

while still supporting a conclusion of obviousness. In re Wiseman 201 USPQ 658 (CCPA 1979); Ex Parte Obiaya 227 USPQ 58 (Bd. of App. 1985).

Relatedly, applicant contends that there is “no basis” is provided “for the contention” that the claimed dimensional limitations are an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization.

This contention is respectfully traversed because case law basis is amply provided; namely, In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Applicant also alleges that Shahani does not disclose the allegedly claimed limitation of “a single parallel-plate capacitor.”

This allegation is respectfully deemed unpersuasive because the claims are not so limited, and Shahani is not necessarily applied to the rejection for this disclosure.

Further, applicant asserts that Shahani teaches away from the limitation that the capacitor is a ground capacitor.

This assertion is respectfully traversed because it is based on mere allegation without a showing of facts or other elaboration.

In addition, applicant argues that there is no motivation to combine the applied prior art.

This argument is respectfully traversed because proper motivation to combine the applied prior art is provided.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to Group 2800 Customer Service whose telephone number is 571-272-2815.

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Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is (703) 872-9306.

A handwritten signature in black ink, appearing to read 'David E. Graybill', is positioned above the printed name.

David E. Graybill
Primary Examiner
Art Unit 2827

D.G.
21-Mar-04